

5

the inner bag 1 in order to pull it out from the outer bag, the surgeon will not accidentally grasp the envelope 18 and thereby impede removal of the inner bag.

As, moreover, the flaps 5 are relatively long in that they extend down to the bottom 2 of the bag 1, it will be sufficient to provide for a relatively small weight of the strips 4, which reduces the weight of the package. If the flaps were shorter and in case the surgical device with bag that the side-walls of the bag swell in the position shown in FIG. 7 one would even with a relatively considerable weight of the strips 4 run the risk that the weight of the flaps be insufficient to cause the latter to fall out to the sides when the inner bag is pulled out from the outer bag and is placed bottom down.

The package shown in FIGS. 6 and 7 has a relatively small size and a relatively slight weight. In addition thereto a quick and easy removal of the surgical device and/or auxiliary being stored under sterile conditions is secured, which means that the risk of contaminating said device or auxiliary during its removal is considerably reduced.

Though the package is illustrated in connection with a suture thread as the surgical device and auxiliary, it may also be used in connection with other surgical devices and auxiliaries such as knives, haemostatic forceps and wound retractors. The holding device shown is to be considered as an illustrating embodiment, only. If desired, the package may be provided with several holding devices, in that each holding device carries for instance a suture thread packed in an envelope, if desired.

In FIG. 9 a flap bag 20 provided with weighty strips 21 contains a catheter 22. The side-walls of the bag 20 are slitted up to the bottom of the bag and the catheter 22 is kept in place by means of two weldings 23. The flap bag 20 is surrounded by an outer germ-tight bag 24 consisting of a main portion 25 and a bottom portion 26, the latter being joined to the former at 27.

When the catheter in the package is to be used, the bottom portion 26 is removed from the main portion 25 and the flap bag 20 is placed with the bottom down, which makes the catheter 22 accessible.

FIG. 10 shows the same flap bag as in FIG. 9, but the outer germ-tight bag only surrounds the lower part of the flap bag 20 to which the bag 28 is joined at 29. When the outer bag 28 is released from the flap bag 20 and the latter is placed with the bottom down, the catheter will be accessible.

The principle of keeping the surgical device in place in the flap bag by means of the weldings 23 shown in FIGS. 9 and 10 may also be used in connection with the flap bag shown in FIGS. 3 and 4, in which case the side-walls of the flap bag are slitted up to the bottom of the bag, which makes it superfluous to seal the side-walls at their edges at the bottom of the bag.

The outer bag may also be produced from a plastic foil, e.g. nylon or polyethylene which may be welded together by the action of heat.

The embodiment shown in FIGS. 3 to 8 may further be modified in that the suture material is placed in a sealed bag containing a moistening agent, if desired, within the flap bag 1, but such modified embodiment is less appropriate since it requires a special cutting or slitting in order that free admission to the suture material may be obtained.

In the foregoing sterilization by autoclaving is mentioned, but it is also possible to use other sterilizing methods, such as dry sterilization by ethylene oxide gas or sterilization by irradiation with β or γ rays.

We claim:

1. A package for sterile storage of suture and ligature material, haemostatic forceps, wound retractors, knives, catheters, and other surgical devices which comprises an envelope for holding at least one of said devices, said envelope having a closed bottom and sidewalls joined with

6

one another a selected distance from the bottom of the envelope, said side walls being flexible and extending beyond the joined portion to form flaps, said flaps being loaded with such weight that when the envelope is placed bottom down, said flaps fall out to the sides and thereby provide free and easy admission to the interior of the envelope.

2. A package according to claim 1, wherein said flaps are provided with weighty strips at their free ends.

3. A package according to claim 2, wherein said strips on the flaps of the envelope are formed by thickening of the flaps.

4. A package according to claim 1, in which holding means are provided at the bottom of the envelope for fixing the position of the surgical device.

5. A package according to claim 4, in which the holding means comprises a stiff projecting strip secured to the bottom of the envelope.

6. A package according to claim 5, in which said projecting strip is integral with a footing, said footing extending along the bottom of the envelope and secured thereto thereby securing said projecting strip to the bottom of the envelope.

7. A package according to claim 5, in which said projecting strip is adapted to fit in a pocket in an additional envelope for the surgical device.

8. A package for sterile storage of suture and ligature material, haemostatic forceps, wound retractors, knives, catheters and other surgical devices in the presence of a water-containing moistening agent therefor which comprises an envelope for holding at least one of said devices, said envelope having a closed bottom and sidewalls joined with one another a selected distance from the bottom of the envelope, said side walls being flexible and extending beyond the joined portion to form flaps, said flaps being provided at their free ends with weighty strips of a porous material in which the moistening agent has been absorbed.

9. A package for sterile storage of suture and ligature material, haemostatic forceps, wound retractors, knives, catheters, and other surgical devices which comprises an envelope containing at least one of said devices, said envelope having a closed bottom and sidewalls joined with one another a selected distance from the bottom of the envelope, said side walls being flexible and extending beyond the joined portion to form flaps, said flaps being loaded with such weight that when the envelope is placed bottom down, said flaps fall out to the sides and thereby provide free and easy admission to the interior of the envelope, and a germ-tight outer bag surrounding and sealing at least the top, open portion of said envelope.

10. A package for sterile storage of suture or ligature material according to claim 9, in which said package contains a water-containing moistening agent for said material.

11. A package for sterile storage of suture or ligature material according to claim 9, in which holding means are provided at the bottom of the envelope for fixing the position of the surgical device.

12. A package for sterile storage of suture and ligature material, haemostatic forceps, wound retractors, knives, catheters, and other surgical devices which comprises an envelope containing at least one of said devices, said envelope having a closed bottom and sidewalls joined with one another a selected distance from the bottom of the envelope, said side walls being flexible and extending beyond the joined portion to form flaps, said flaps being loaded with such weight that when the envelope is placed bottom down, said flaps fall out to the sides and thereby provide free and easy admission to the interior of the envelope, and a sealed outer bag of germ-tight material surrounding said envelope, the bottom of said envelope being adjacent the extremity destined to be opened of said outer bag.

13. A package for sterile storage of suture or ligature material according to claim 9, in which the holding means